DOCKET NO.: ISIS-5207 **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Brenda F. Baker, et al. **Confirmation No.: 5280**

Application No.: 10/701,236 **Group Art Unit: 1635**

Filing Date: November 4, 2003 **Examiner: Tracy Ann Vivlemore**

For: SUGAR SURROGATE-CONTAINING OLIGOMERIC COMPOUNDS AND COMPOSITIONS FOR USE IN GENE MODULATION

ELECTRONICALLY FILED: August 26, 2009

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

☐ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

☒ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.116 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☒ The fee of **$180.00** as set forth in § 1.17(p) is attached.

☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of **$180.00** as set forth in § 1.17(p).

☒ Copies of reference numbers **351-944** listed on the attached Form PTO-1449 are enclosed herewith.

☒ Copies of reference numbers **1-350** on the attached Form PTO 1449 are not required to be submitted pursuant to 37 CFR § 1.98(a)(2)(ii).

The enclosed 1449 form includes references cited in related applications. For the Examiner's convenience, also being submitted herewith is a table listing related applications and references cited in official actions issued in the related applications that served as the basis for rejections under 35 U.S.C. § 102 or § 103.

☒ The relevance of those listed references which are not in the English language is as follows:

English language abstracts have been provided for those listed references which are not in the English language.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050.

Date: August 26, 2009

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REJECTIONS MADE IN OTHER APPLICATIONS

Application Number/ Attorney Docket Number	Date of Official Action on the Merits	Rejections Levied in Official Action under 35 U.S.C. §§ 102 or 103	Other Rejections Levied in Official Action	Application Status
08/659,440 ISIS2197	January 13, 1997	§103 (a): Metelev, *Bioorg. Med. Chem. Lett.* 1994, 4:2929-2934; and Lengyel *Journal of Interferon Res.*, 1987, 7, 511	§112, first paragraph, enablement	Patented
	July 22, 1997	§ 103 (a): Strickland, *Science* 1988 241:680-684; Metelev, *Bioorg. Med. Chem. Lett.* 1994, 4:2929-2934; and Dagle, *Nucleic Acids Res.* 1991, 19, 1805-1810		
	January 28, 1998	§ 103 (a): Strickland, *Science* 1988 241:680-684; Metelev, *Bioorg. Med. Chem. Lett.* 1994, 4:2929-2934; and Goodchild, Bioconjug. Chem. 1990 1:165-187		
08/870,608 ISIS2484	March 17, 1999	None	(1) Obviousness-type double patenting U.S. patent application no. 08/659,440; (2) § 112 first paragraph, enablement	Patented

	October 8, 1999	None	(1) Obviousness-type double patenting U.S. patent application no. 08/659,440; (2) § 112 first paragraph, enablement	
09/479,783 ISIS4313	May 1, 2003	§ 102 (b) PCT patent application publication no. WO 94/01550		Abandoned
	December 24, 2003	§ 102 (b) PCT patent application publication no. WO 94/01550		
	May 18, 2004	(1) § 102 (b) U.S. patent no. 5,013,830; (2) § 102 (b) U.S. patent no. 5,256,775	(1) § 112, first paragraph, written description; (2) § 112, second paragraph indefiniteness	
	February 9, 2005	(1) § 102 (b) U.S. patent no. 5,013,830; (2) § 102 (b) U.S. patent no. 5,256,775	§ 112, first paragraph, written description	
	September 1, 2005	(1) § 102 (b) U.S. patent no. 5,013,830; (2) § 102 (b) or § 103(a) U.S. patent no. 5,256,775	(1) § 112, first paragraph, written description; (2) § 112, second paragraph indefiniteness	
	June 8, 2006	(1) § 102 (b) U.S. patent no. 6,849,726; (2) § 103 (a) U.S. patent no. 6,849,726		
	February 21, 2007	§ 101, utility		

10/280,600 ISIS0002-104	March 28, 2006		(1) § 112, first paragraph, written description; (2) § 112, second paragraph indefiniteness	Abandoned
10/281,349 ISIS0002-105 (ISIS-5780)	June 30, 2006	(1) § 103 (a) U.S. patent no. 6,573,072; (2) §103(a) U.S. patent no. 6,849,726	§ 112, second paragraph indefiniteness	Allowed
	March 19, 2007	§ 103 (a) U.S. patent no. 6,573,072	Obviousness-type double patenting, U.S. patent no. 6,107,094	
	December 11, 2007	§ 103 (a) U.S. patent no. 6,087,484	(1) § 112, second paragraph indefiniteness; (2) § 112, first paragraph written description	
	June 19, 2009		Obviousness-type double patenting, U.S. patent no. 7,432,250	
10/281,312 ISIS0002-106 (ISIS-5779)	June 29, 2006	§ 102 (e) U.S. patent no. 6,573,072	§ 112, second paragraph indefiniteness	Patented
	March 10, 2008		Obviousness-type double patenting, U.S. patent no. 6,107,094	
10/281,297 ISIS0002-107 (ISIS-5778)	March 21, 2006	§ 102 (b) PCT patent application publication no. WO 94/01550		Patented
	September 22, 2006	(1) § 103 (a) U.S. patent no. 6,573,072; (2) §103(a) U.S. patent no.		

		6,849,726		
	April 2, 2007	§ 103 (a) U.S. patent no. 6,573,072	Obviousness-type double patenting, U.S. patent no. 6,107,094	

10/078,949 ISIS5027	February 10, 2005	(1) § 102 (b) PCT patent application publication no. WO 94/01550; (2) § 103 (a) PCT patent application publication no. WO 94/01550 in view of Hunzinker and Leumann, *Nucleic Acid Analogues: Synthesis and Properties in Modern Synthetic Methods*, 1995, ed. Ernst and Leumann, pp. 331-417	§ 112, first paragraph, written description	Pending
	August 12, 2005		(1) § 112, second paragraph indefiniteness; (2) § 112, first paragraph, written description	
	June 23, 2006	(1) § 102 (e) U.S. patent no. 6,573,072; (2) §102 (e) U.S. patent no. 6,849,726; (3) § 103 (a) U.S. patent no. 6,573,072; (4) §103(a) U.S. patent no. 6,849,726; (5) § 103 (a) U.S. patent no. 6,573,072; (6) § 103 (a) U.S. patent no.		

		6,573,072 in view of U.S. patent no. 6,037,463; (7) §103(a) U.S. patent no. 6,849,726 in view of U.S. patent no. 6,037,463		
	May 23, 2008	§103(a) U.S. patent no. 6,087,484	(1) § 112, second paragraph indefiniteness; (2) § 112, first paragraph, written description	
	September 11, 2008	§ 103 (a) PCT patent application publication no. WO 94/02498	Obviousness-type double patenting, (1) U.S. patent no. 6,107,094; (2) U.S. patent no. 5,898,031; (3) U.S. patent application no. 10/281,349	
10/371,526 ISIS0002-108	December 13, 2005	(1) § 102 (b) European patent no. EP 0 339 842; (2) § 103 (a) European patent no. EP 0 339 842 in view of Milligan, *J. Med. Chem*, 1993, 36, 1923; PCT patent application publication no. WO 93/07883; and U.S. patent no. 5,898,031	(1) § 112, second paragraph indefiniteness; (2) § 112, first paragraph, written description; (3) § 112, first paragraph, enablement	Abandoned
10/860,455 CHEM0003US.P2 (ISIS-5480)	March 23, 2007	(1) § 102 (a) Tracewell, *Toxicology and Applied Pharmacology*, 1995, 135, 179-184; (2) § 102 (b) PCT patent application publication no. WO	Obviousness-type double patenting, U.S. patent application no. 09/479,783	Pending

		94/01550		
	October 31, 2007	(1) § 102 (a) Tracewell, *Toxicology and Applied Pharmacology*, 1995, 135, 179-184; (2) § 103(a) US 5,506,212	Obviousness-type double patenting, U.S. patent application no. 09/479,783	
	July 18, 2008	(1) § 103(a) U.S. patent application publication no. 2004/0259247 in view of U.S. patent no. 5,506,212; (2)	Obviousness-type double patenting, U.S. patent application no. 09/479,783	
10/701,012 CHEM0004US.P1	May 8, 2006	(1) § 102 (e) U.S. patent application publication no. 2003/0139585; (2) § 102 (e) U.S. patent application publication no. 2004/0146867; (3) § 103 (a) U.S. patent application publication nos. 2003/0139585 and 2004/0146867 in view of U.S. patent nos. 5,082,934 and 5,719,271	(1) § 112, second paragraph indefiniteness; (2) § 112, first paragraph, written description; (3) § 112, first paragraph, enablement; (4) Obviousness-type double patenting, U.S. patent application no. 10/606,510	Abandoned

10/700,884 CHEM0008US.P1 (ISIS-5317)	June 24, 2005	(1) § 102 (b) Parrish, *Molecular Cell*, 2000, 6, 1077-1087; (2) § 102 (b) U.S. patent no. 5,891,684	Obviousness-type double patenting, U.S. patent application no. 10/700,884	Abandoned
	July 12, 2006	(1) § 102 (e) U.S. patent no. 6,222,025;	(1) 101, non-statutory subject matter;	

		(2) § 102 (b) Kimura-Harada, *FEBS Lett*., 1971, 13, 335-338; (3) § 103 (a) U.S. patent no. 5,861,439 or U.S. patent no. 5,760,202 in view of U.S. patent no. 5,256,775, U.S. patent no. 5,466,786, and U.S. patent no. 4,720,483; (4) § 103 (a) U.S. patent no. 5,256,775, U.S. patent no. 5,466,786, Kuimelis, *Nucleic Acids Res*. 1994, 22, 1429-1436, and Martin, *Helvetica Chimica Acta*, 1995, 78, 486-504	(2) Obviousness-type double patenting, U.S. patent no. 5,861,493 in view of U.S. patent no. 5,256,775, U.S. patent no. 5,466,786, Kuimelis, *Nucleic Acids Res*. 1994, 22, 1429-1436, and Martin, *Helvetica Chimica Acta*, 1995, 78, 486-504; (3) Obviousness-type double patenting, U.S. patent no. 6,222,025 in view of U.S. patent no. 5,256,775, U.S. patent no. 5,466,786, Kuimelis, *Nucleic Acids Res*. 1994, 22, 1429-1436, and Martin, *Helvetica Chimica Acta*, 1995, 78, 486-504; (4) Obviousness-type double patenting, U.S. patent no. 5,760,202 in view of U.S. patent no. 5,256,775, U.S. patent no. 5,466,786, Kuimelis, *Nucleic Acids Res*. 1994, 22, 1429-1436, and Martin, *Helvetica Chimica Acta*, 1995, 78, 486-504;	
10/700,939	May 25, 2006	(1) § 102 (b) U.S. patent no.	(1) Claim of priority	Abandoned

CHEM0012US.P1 (ISIS-5318)		5,561,043; (2) § 102 (b) U.S. patent no. 5,424,413; (3) § 102 (b) U.S. patent no. 6,274,723; (4) § 102 (b) Porta & Lizardi, *Biotechnology*, 1994, 13, 161-164	denied; (2) § 112, first paragraph, enablement	
	July 28, 2006	(1) § 102 (b) U.S. patent no. 5,561,043; (2) § 102 (b) U.S. patent no. 5,424,413; (3) § 102 (b) U.S. patent no. 6,274,723; (4) § 102 (b) Porta & Lizardi, *Biotechnology*, 1994, 13, 161-164	(1) Claim of priority denied; (2) § 112, first paragraph, enablement	
10/701,316 ISIS5301	October 13, 2006	(1) § 102 (b) U.S. patent no. 5,998,203; (2) § 102 (b) PCT patent application publication no. WO 94/01550; (3) § 102 (b) Elbashir, *EMBO J.*, 2001, 20, 6877-6888	(1) Claim of priority denied; (2) § 112, first paragraph, enablement	Pending
	March 6, 2007		§ 112, first paragraph, written description	
	July 10, 2007	(1) § 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888 in view of Wilds, *Nucleic Acids Res.*, 2000, 28, 3625-3635 and Hammond, *Nature*, 2001, 2,	(1) Claim of priority denied; (2) § 112, first paragraph, written description	

		110-119; (2) § 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888 in view of Wilds, *Nucleic Acids Res.*, 2000, 28, 3625-3635, Hammond, *Nature*, 2001, 2, 110-119, and Veronese, Il Farmaco, 1999, 54, 497-516; (3) § 103 (a) Tracewell, *Toxicology and Applied Pharmacology*, 1995, 135, 179-184 in view of Wilds, *Nucleic Acids Res.*, 2000, 28, 3625-3635		
	March 27, 2008	§ 102 (e) U.S. patent application publication no. 2006/0127891	(1) Claim of priority denied; (2) § 112, second paragraph, indefiniteness; (3) § 112, first paragraph, written description	
	October 30, 2008	§ 103 (a) U.S. patent application publication no. 2006/0127891 in view of U.S. patent application publication no. 2004/0180351 and Olie, *et al., Biochimica et Biophysica Acta*, 2002, 1576, 101-109	(1) Claim of priority denied; (2) § 112, second paragraph, indefiniteness; (3) § 112, first paragraph, written description	
10/700,689 ISIS5313	May 31, 2005	(1) § 102 (b) Parrish, *Molecular Cell*, 2000, 6, 1077-1087;	Obviousness-type double patenting, U.S. patent application no. 10/701,316	Pending

		(2) § 102 (a) U.S. patent no. 5,998,203		
	November 29, 2005	(1) § 102 (b) Parrish, *Molecular Cell*, 2000, 6, 1077-1087; (2) § 103 (a) Parrish, *Molecular Cell*, 2000, 6, 1077-1087 in view of Elbashir, *EMBO J.*, 2001, 20 (23), 6877-6888, U.S. patent no. 5,955,443 and Hammond, *Nature*, 2001, 2, 110-119		
	July 28, 2006	(1) § 102 (b) Parrish, *Molecular Cell*, 2000, 6, 1077-1087; (2) § 103 (a) Parrish, *Molecular Cell*, 2000, 6, 1077-1087 in view of Elbashir, *EMBO J.*, 2001, 20 (23), 6877-6888, U.S. patent no. 5,955,443 and Hammond, *Nature*, 2001, 2, 110-119	(1) Claim of priority denied; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316; (3) § 112, second paragraph indefiniteness	
	November 14, 2006	(1) § 102 (b) Parrish, *Molecular Cell*, 2000, 6, 1077-1087; (2) § 103 (a) Parrish, *Molecular Cell*, 2000, 6, 1077-1087 in view of Elbashir, *EMBO J.*, 2001, 20 (23), 6877-6888, U.S. patent no. 5,955,443 and Hammond, *Nature*, 2001,	(1) Claim of priority denied; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316	

		2, 110-119; (3) § 102 (b) U.S. patent no. 5,998,203		
	September 18, 2007	(1) § 102 (e) U.S. patent no. 7,022,828; (2) § 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888 in view of Wilds, *Nucleic Acids Res.*, 2000, 28, 3625-3635, Parrish, *Molecular Cell*, 2000, 6, 1077-1087, Monia, *J Biol. Chem.,* 1993, 268, 14514-14522 and Hammond, *Nature Reviews Genetics*, 2001, 2, 110-119; (3) § 103 (a) Bevilacqua, *Biochemistry*, 1996, 35, 9983-9994 in view of Monia, *J Biol. Chem.,* 1993, 268, 14514-14522 and U.S. patent no. 5,631,148	(1) § 112, first paragraph, written description; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316; (3) Obviousness-type double patenting, U.S. patent no. 6,107,094; (4) Obviousness-type double patenting, U.S. patent application no. 10/281,297; (5) Obviousness-type double patenting, U.S. patent application no. 10/078,949; (6) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (7) Obviousness-type double patenting, U.S. patent application no. 10/701,007	
	June 17, 2008	§ 102 (e) U.S. patent application publication no. 2004/0180351	(1) Claim of priority denied; (2) Obviousness-type	

			double patenting, U.S. patent application no. 10/701,316; (3) Obviousness-type double patenting, U.S. patent no. 6,107,094; (4) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (5) Obviousness-type double patenting, U.S. patent application no. 10/701,007; (6) § 112, first paragraph, written description;	
	January 16, 2009	§ 103 (1) U.S. patent application publication no. 2004/0180351 in view of U.S. patent application publication no. 2006/0127891 and Olie, *et al., Biochimica et Biophysica Acta*, 2002, 1576, 101-109	(1) Claim of priority denied; (2) § 112, first paragraph, written description;	
10/701,264 ISIS5314	October 5, 2006	(1) § 102 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888; (2) § 102 (b) PCT patent application publication no. WO 94/01550; (3) § 102 (b) Monia, *J Biol. Chem.,* 1993, 268, 14514-	(1) Claim of priority denied; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316; (3) Obviousness-type	Pending

		14522; (4) § 102 (b) Yu, *Bioorganic and Medicinal Chemistry,* 1996, 4, 1685-1692; (5) § 102 (b) PCT patent application publication no. WO 94/02498	double patenting, U.S. patent application no. 10/701,265	
	March 7, 2007	(1) § 102 (b) Shuman, *J. Biol Chem,* 1993, 268, 18943-18950; (2) § 103 (a) Beigelman, *J. Biol Chem,* 1995, 270, 25702-25708 in view of Koizumi, *Nucleic Acids Research,* 1989, 17, 7059-7071	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,265; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316; (3) Obviousness-type double patenting, U.S. patent application no. 09/479,783; (4) § 112, first paragraph, enablement	
	July 25, 2007	(1) § 102 (a) Bevilacqua, *Biochemistry*, 1996, 35, 9983-9994; (2) § 102 (a) Yu, *RNA,* 1997, 324-331; (3) § 103 (a) Beigelman, *J. Biol Chem,* 1995, 270, 25702-25708 in view of Koizumi, *Nucleic Acids Research,* 1989, 17, 7059-7071 and U.S. patent no.	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,265; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,316; (3) Obviousness-type double patenting, U.S.	

		5,151,510; (4) § 103 (a) Yu, *RNA,* 1997, 324-331 in view of U.S. patent no. 5,151,510	patent application no. 09/479,783; (4) § 112, second paragraph, indefiniteness	
	February 6, 2008	§ 103 (a) U.S. patent application publication no. 2003/0143732 in view of Elbashir, *EMBO J.*, 2001, 20, 6877-6888; Parrish, *Molecular Cell*, 2000, 6, 1077-1087; and U.S. patent no. 5,801,154.	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,265; (2) Obviousness-type double patenting, U.S. patent application no. 09/479,783; (3) Claim for priority denied	
	August 29, 2008	§ 103 (a) U.S. patent application publication no. 2003/0143732 in view of Elbashir, *EMBO J.*, 2001, 20, 6877-6888; Parrish, *Molecular Cell*, 2000, 6, 1077-1087; and U.S. patent no. 5,801,154.	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,265; (2) Obviousness-type double patenting, U.S. patent application no. 09/479,783; (3) Claim for priority denied	
	February 19, 2009	§ 103 (a) Lee, et al., Cell, 1993, 75, 843-854; Manche, et al., *Molecular and Cellular Biology*, 1992, 12, 5238-5248, published PCT application publication no. WO 94/01550, and U.S. patent no. 5,801,154		

11/054,848 ISIS5586	March 23, 2007	(1) § 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/014732, and U.S. patent application no. 2003/0206887 in view of U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,007; (2) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (3) § 112, first paragraph, enablement	Pending
	November 30, 2007	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/014732, and U.S. patent application publication no. 2003/0206887 in view of U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,007; (2) Obviousness-type double patenting, U.S. patent application no. 10/860,265	
	June 18, 2008	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/014732, and U.S. patent application no. 2003/0206887 in view of U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/701,007; (2) Obviousness-type double patenting, U.S. patent application no. 10/860,265	
10/700,697	September 21, 2006	(1) § 103 (a) U.S. patent no.	(1) Claim of priority	Pending

ISIS5312		6,818,759 in view of U.S. patent no. 6,506,559; (2) § 103 (a) U.S. patent no. 6,506,559 in view of Alahari, *J. Pharmacology and Experimental Therapeutics,* 1998, 286, 419-428 and U.S. patent application publication no. 2003/0125241	denied; (2) § 112, second paragraph, indefiniteness; (3) § 112, first paragraph, enablement; (4) § 112, first paragraph, written description; (5) Obviousness-type double patenting, U.S. patent application no. 10/701,007	
	January 5, 2007	(1) § 103 (a) U.S. patent no. 6,818,759 and U.S. patent no. 6,506,559; (2) § 103 (a) U.S. patent no. 6,506,559, Alahari, *J. Pharmacology and Experimental Therapeutics,* 1998, 286, 419-428 and U.S. patent application publication no. 2003/0125241; (3) § 102 (e) Tuschl, *Molecular Interventions,* 2002, 2, 158-167	(1) Claim of priority denied; (2) § 112, first paragraph, written description; (3) Obviousness-type double patenting, U.S. patent application no. 10/701,007	
	July 6, 2007	(1) § 102 (b) Cook, *Anti-Cancer Drug Design,* 1991, 6, 585-607; (2) § 103 (a) Crooke, *Biochemical Journal*, 1995, 312, 599-608 in view of Berger, *Nucleic Acids*	(1) Claim of priority denied; (2) § 112, second paragraph, indefiniteness	

		Research, 1998, 26, 2473-2480; (3) § 103 (a) Lesnik, *Biochemistry,* 1995, 34,10807-10815 in view of Berger, *Nucleic Acids Research*, 1998, 26, 2473-2480; (4) § 103 (a) Wu, *J. Biol. Chem,* 1998, 273, 2352-2542 in view of Cook, *Anti-Cancer Drug Design,* 1991, 6, 585-607		
	March 3, 2008	(1) § 102 (e) U.S. patent application publication no. 2004/019626; (2) § 102 (a) and § 102 (e) U.S. patent application publication no. 2003/0143732	(1) Claim of priority denied; (2) § 112, first paragraph, written description	
	October 22, 2008	(1) § 103 (a) Grünweller, *et al*., *Nucleic Acids Res*., 2003, 31, 3185-3193 in view of U.S. patent application publication no. 2003/0143732; (2) § 103 (a) Braasch, *et al*., *Biochemistry*, 2003, 42, 7967-7975 in view of U.S. patent application publication no. 2003/0143732; (3) § 103 (a) published PCT application no. WO 2004/083430	(1) Claim of priority denied; (2) § 112, first paragraph, written description (3) Obviousness-type double patenting, U.S. patent application no. 10/701,264; (4) Obviousness-type double patenting, U.S. patent application no. 10/561,324	

	July 16, 2009	(1) § 103 (a) Grünweller, *et al*., *Nucleic Acids Res*., 2003, 31, 3185-3193 in view of U.S. patent application publication no. 2003/0143732; (2) § 103 (a) Braasch, *et al*., *Biochemistry*, 2003, 42, 7967-7975 in view of U.S. patent application publication no. 2003/0143732; (3) § 103 (a) published PCT application publication no. WO 2004/083430 (4) § 102 (e) U.S. patent application publication no. 2004/0180351	(1) § 112, first paragraph, written description; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,264; (3) Obviousness-type double patenting, U.S. patent application no. 10/561,324	
10/701,236 ISIS5207	October 2, 2006	(1) § 103 (a) PCT patent application no. WO 94/01550 in view of U.S. patent no. 5,639,873; (2) § 103 (a) U.S. patent application publication no. 2004/0029275 in view of U.S. patent no. 5,639,873	(1) Claim of priority denied; (2) § 112, first paragraph, written description; (3) § 112, first paragraph, enablement; (4) Obviousness-type double patenting, U.S. patent application no. 10/700,697	Pending
	March 14, 2007	(1) § 103 (a) U.S. patent application no. 2004/0029275 in view of U.S. patent no. 5,639,873		

	July 25, 2007	(1) § 102 (a) Bevilacqua, *Biochemistry*, 1996, 35, 9983-9994; (2) § 102 (a) Yu, *RNA,* 1997, 3, 324-331; (3) § 102 (e) U.S. patent application publication no. 2004/0029275; (4) § 103 (a) Beigelman, *J. Biol Chem,* 1995, 270, 25702-25708 in view of Koizumi, *Nucleic Acids Research,* 1989, 17, 7059-7071 and U.S. patent no. 5,151,510; (5) § 103 (a) Yu, *RNA,* 1997, 3, 324-331 in view of U.S. patent no. 5,151,510	(1) Claim of priority denied; (2) § 112, second paragraph, indefiniteness; (3) Obviousness-type double patenting, U.S. patent application no. 10/700,697; (4) Obviousness-type double patenting, U.S. patent application no. 10/701,264; (5) Obviousness-type double patenting, U.S. patent application no. 10/701,316	
	April 15, 2008	(1) § 102 (a) Bevilacqua, *Biochemistry*, 1996, 35, 9983-9994; (2) § 102 (a) Yu, *RNA,* 1997, 3, 324-331; (3) § 103 (a) Yu, *RNA,* 1997, 3, 324-331 in view of U.S. patent no. 5,151,510 and U.S. patent no. 5,142,047	(1) Obviousness-type double patenting, U.S. patent application no. 10/700,697; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,264; (3) Obviousness-type double patenting, U.S. patent application no. 10/701,316	
	July 10, 2008	§ 103 (a) Yu, *RNA,* 1997, 3,	(1) Obviousness-type	

		324-331 in view of U.S. patent no. 5,151,510 and U.S. patent no. 5,142,047	double patenting, U.S. patent application no. 10/700,697; (2) Obviousness-type double patenting, U.S. patent application no. 10/701,264; (3) Obviousness-type double patenting, U.S. patent application no. 10/701,316	
	April 2, 2009	§ 103 (a) Lee, et al., *Cell*, 1993, 75, 843-854; Manche, et al., *Mol. Cell Biol*., 1992, 12, 5238-5248; PCT patent application publication no. WO 94/01550; U.S. patent no. 5,801,154; and U.S. patent no. 5,519,134		
10/700,920 ISIS5203	October 2, 2006	(1) § 102 (e) U.S. patent application publication no. 2004/0029275; (2) § 103 (a) U.S. patent application publication no. 2004/0029275 in view of U.S. patent no. 5,459,255; (3) § 103 (a) PCT patent application publication no. WO 94/01550 in view of U.S. patent no. 5,459,255	(1) Claim of priority denied; (2) § 112, first paragraph, written description; (3) § 112, first paragraph, enablement; (4) Obviousness-type double patenting, U.S. patent application no. 10/561,618	Abandoned

10/460,433 CHEM0003US (ISIS-5200)	February 15, 2006	(1) § 102 (b) PCT patent application publication no. WO 94/01550; (2) § 102 (e) U.S. patent application publication no. 2003/0143732; (3) § 102 (b) U.S. patent no. 6,210,892; (4) § 102 (b) PCT patent application publication no. WO 02/44321; (5) U.S. patent application publication no. 2003/0143732 in view of U.S. patent no. 6,210,892	(1) § 112, second paragraph, indefiniteness; (2) § 101 statutory-type double patenting, U.S. patent application no. 10/700,688; (3) Obviousness-type double patenting, U.S. patent application no. 10/700,697; (4) Obviousness-type double patenting, U.S. patent application no. 10/700,930; (5) Obviousness-type double patenting, U.S. patent application no. 10/700,971; (6) Obviousness-type double patenting, U.S. patent application no. 10/701,217; (7) Obviousness-type double patenting, U.S. patent application no. 10/701,236; (8) Obviousness-type double patenting, U.S. patent application no. 10/701,265	Abandoned
10/606,510	April 3, 2006	(1) §102 (e) U.S. patent	(1) § 112, second	Abandoned

CHEM0004US		application publication no. 2003/0139585; (2) §102 (e) U.S. patent application publication no. 2004/0146867; (3) §103 (a) U.S. patent application publication no. 2003/0139585 and U.S. patent application publication no. 2004/0146867 in view of U.S. patent no. 5,082,934 and U.S. patent no. 5,719,271	paragraph, indefiniteness; (2) § 112, first paragraph, written description; (3) § 112, first paragraph, enablement;	
10/701,285 CHEM0006US (ISIS-5240)	March 16, 2007		(1) § 112, first paragraph, written description; (2) § 101, utility and § 112, first paragraph, enablement	Pending
	August 30, 2007		(1) § 112, first paragraph, written description; (2) § 101, utility and § 112, first paragraph, enablement	
	April 11, 2008		(1) § 112, second paragraph indefiniteness (2) § 101, utility and § 112, first paragraph, enablement	
	December 24, 2008		§ 101, utility and § 112, first paragraph, enablement	
10/701,007 ISIS5325	May 5, 2006	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, and U.S. patent application publication		Pending

		no. 2003/0206887		
	October 19, 2006	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, and U.S. patent application publication no. 2003/0206887		
	March 26, 2007	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) § 112, first paragraph, enablement; (2) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (3) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
	September 14, 2007	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (2) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
	March 27, 2008	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication	(1) Obviousness-type double patenting, U.S. patent application no.	

		no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	10/860,265; (2) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
	December 8, 2008	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (2) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
	July 30, 2009	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2004/0180351, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 10/860,265; (2) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
10/860,265 ISIS5482	April 10, 2007	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S.	(1) § 112, first paragraph, enablement;	Pending

		patent publication application no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(2) Obviousness-type double patenting, U.S. patent application no. 10/701,007; (3) Obviousness-type double patenting, U.S. patent application no. 11/054,848	
	November 30, 2007	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 11/054,848; and (2) Obviousness-type double patenting, U.S. patent application no. 10/701,007	
	June 19, 2008	§ 103 (a) Elbashir, *EMBO J.*, 2001, 20, 6877-6888, U.S. patent application publication no. 2003/0143732, U.S. patent application publication no. 2003/0206887, U.S. patent no. 6,262,036, U.S. patent application publication no. 2005/0142535, and U.S. patent no. 6,133,246	(1) Obviousness-type double patenting, U.S. patent application no. 11/054,848; and (2) Obviousness-type double patenting, U.S. patent application no. 10/701,007	
10/859,825 ISIS-5481	October 3, 2007	§ 102: Damha, *J. Am. Chem. Soc.* 120: 12976-12977; US 2003/0143732	(1) claim of priority denied; double patenting: 10/700,689; noted that	Pending

			double patenting "may be appropriate" for: 10/860,455; 10/909,125; 10/664,639; 10/701,007, 10/701,264; 10/701,285, 10/936,273; 10/561,618; 10/700,689; 10/700,697; 10/701,236; 10/701,265; 10/701,306; 10/860,265; 11/054,848; 10/561,324; 11/226,882; 11/565,781; 11/565,770; 11/565,773; 11/565,794; 11/565,799; 11/565,804; 11/565,817; 11/565,823; 11/565,833; 11/565,839; 11/565,858; 11/565,816; 11/565,841; 11/569,929; 11/747,042; 11/569,931; 11/569,939; 11/569,941; 11/569,955	
	July 18, 2008	§ 102 (a) U.S. patent application publication no. 2003/0143732	Claim of priority denied	
	March 19, 2009	§ 103 (a) Lee, et al., *Cell*, 1993, 75, 843-854; Manche, et al., *Mol. Cell Biol.*, 1992, 12, 5238-5248; PCT patent application publication no. WO 94/01550; and U.S. patent no. 5,801,154	Obviousness-type double patenting, U.S. patent no. 5,898,031	